



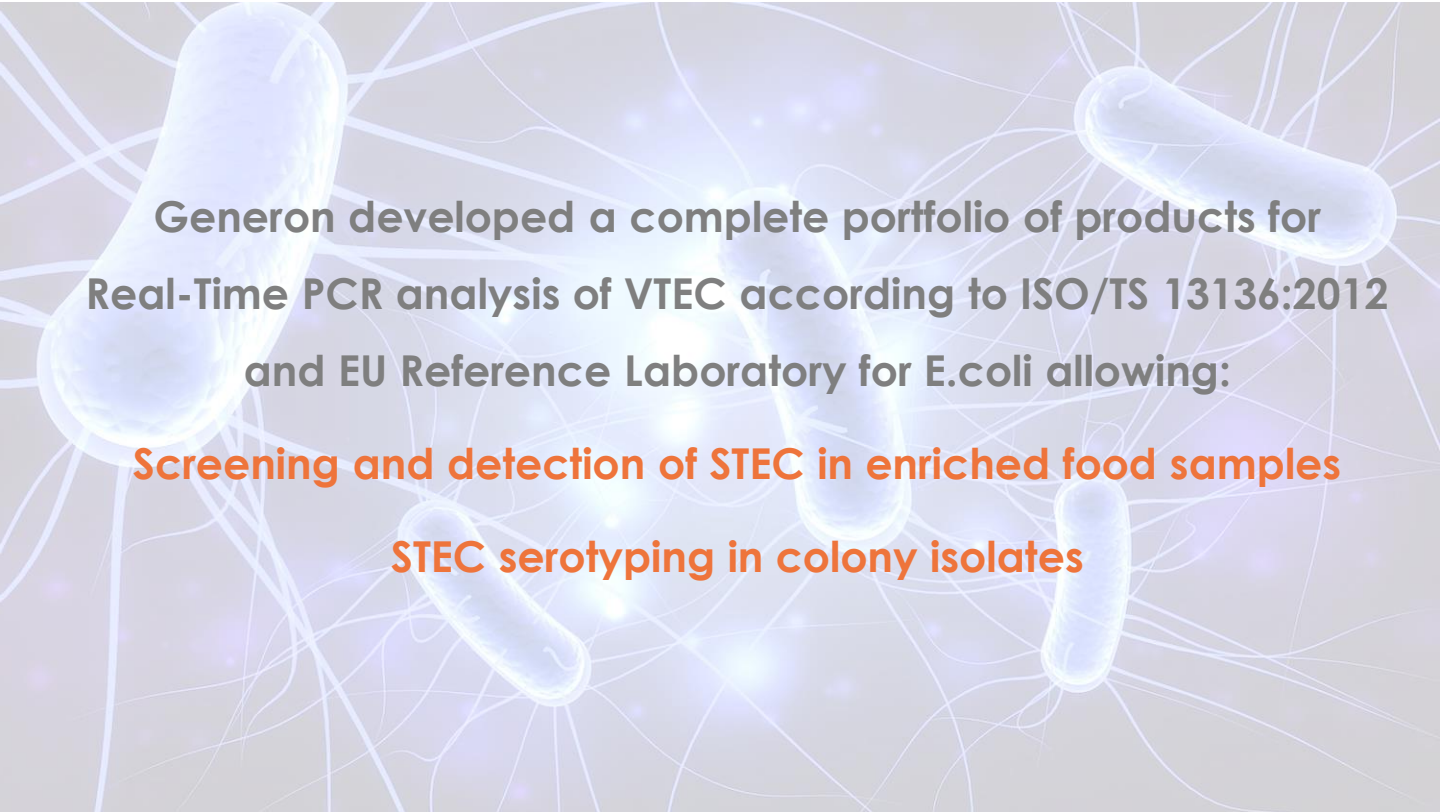
Pathogenic STEC

Solutions for cultural and molecular detection

According to ISO/TS 13136:2012

Escherichia coli are facultative anaerobic gram-negative bacteria that are naturally present in humans and animals as part of the intestinal microflora. Some strains are, however, able to cause disease: Shiga toxin-producing *E. coli* (STEC or VTEC), are responsible for serious human infections such as uncomplicated diarrhea, hemorrhagic colitis, and HUS. These strains are known to produce Shiga toxin (Stx/Vtx) 1 and 2. In addition, other virulence-associated factors [like *eae*] can be present.

Many Real-Time PCR assays for the detection of STEC were developed, but recently an official method (ISO/TS 13136:2012) based on Real-Time PCR detection of STEC virulence genes and the most important serotype was issued opening the way to a tighter control over this pathogen in food industry.

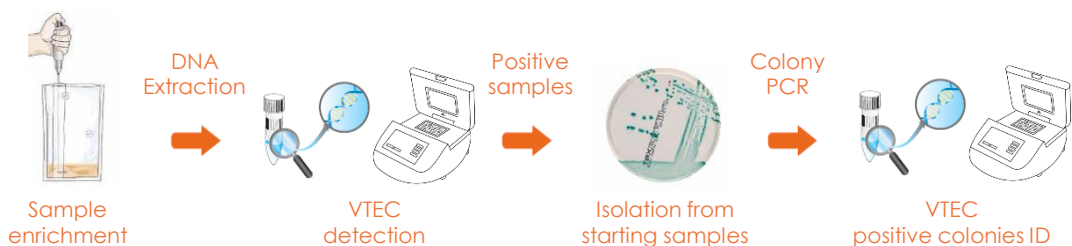
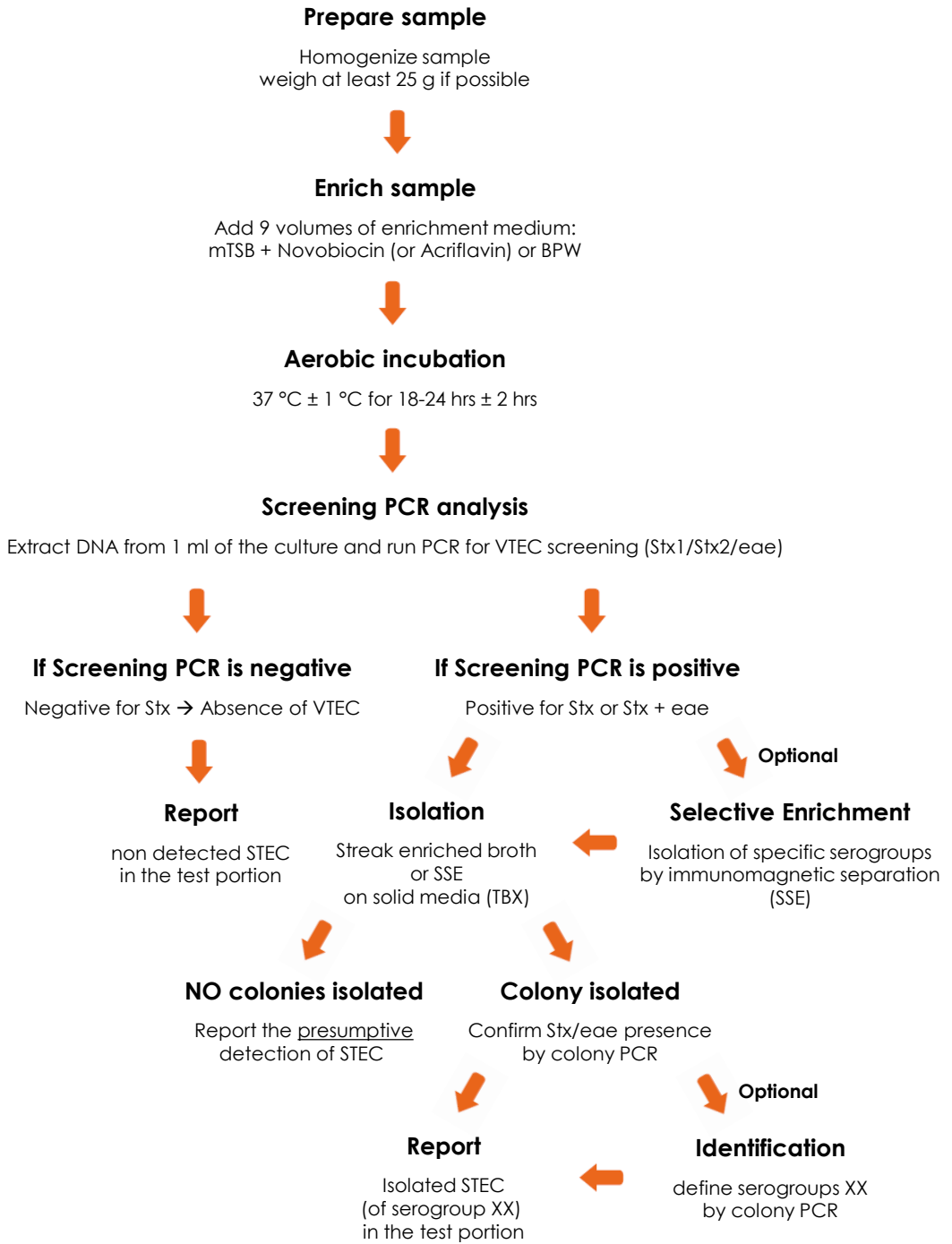


Generon developed a complete portfolio of products for Real-Time PCR analysis of VTEC according to ISO/TS 13136:2012 and EU Reference Laboratory for E.coli allowing:

Screening and detection of STEC in enriched food samples
STEC serotyping in colony isolates

Most human STEC infections have been traced to consumption of contaminated undercooked foods of bovine origin such as ground beef and raw milk. Other sources of infection include manure-contaminated vegetables, raw milk, some dairy products, mayonnaise, delicatessen food, lamb, venison, deer jerky, cured salami, contaminated water, cross-contamination, and direct contact.

Although serotype O157:H7 is the one that has been implicated most frequently in foodborne outbreaks worldwide, more than 100 STEC serotypes (e.g. members of the O26, O45, O103, O111, O121 and O145 serogroups) are known to cause human illnesses.



Instruction for ordering

• Enrichment media and supplements

TMB_BPW_DB_500	Buffered Peptone Water	500 g
TMB_BPW_F225_6	Buffered Peptone Water (BPW)	6 x 225 ml Bottles
TMB_BPW_B5L_2	Buffered Peptone Water (BPW)	2 x 5000 ml Bags
TMB_BPW_B3L_4	Buffered Peptone Water (BPW)	4 x 3000 ml Bags
TN1041	mTSB Broth (Base) without Novobiocin	500 g
TN1324	Novobiocin Selective Supplement	12 Vials
TMB_TBX_P90_10	TBX Agar	10 x 90 mm Petri

• Immunomagnetic separation

STEC_O103_IP_50	E. coli O103 immunoprecipitating beads	50 Tests
STEC_O104_IP_50	E. coli O104 immunoprecipitating beads	50 Tests
STEC_O111_IP_50	E. coli O111 immunoprecipitating beads	50 Tests
STEC_O145_IP_50	E. coli O145 immunoprecipitating beads	50 Tests
STEC_O157_IP_50	E. coli O157 immunoprecipitating beads	50 Tests
STEC_O26_IP_50	E. coli O26 immunoprecipitating beads	50 Tests

• DNA extraction from enrichment broth

EXD009	FASTfood DNA extraction buffer	20 ml
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• Real-Time PCR kits for STEC screening (*according to ISO 13136)

PMB10A-V1-50	PATHfinder - 2-plex [stx1]/IAC (*)	50 reactions
PMB10A-V2-50	PATHfinder - 2-plex [stx2]/IAC (*)	50 reactions
PMB10A-V2F-50	PATHfinder - 2-plex [stx2f]/IAC	50 reactions
PMB10A-VE-50	PATHfinder - 2-plex [eae]/IAC (*)	50 reactions
PMB10A-EFSA-50	PATHfinder - 4-Plex Kit - [stx1]/[stx2 + stx2f]/[eae]/IAC	50 reactions
PMB10M-50	PATHfinder - 3-Plex [stx1+stx2]/[eae]/IAC (*)	50 reactions
PMB10M-V1C2E-50	PATHfinder - 4-Plex [stx1]/[stx2]/[eae]/IAC (*)	50 reactions
PMB10A-50	PATHfinder - 2x2-Plex Kit - [stx1]/[stx2] & [eae]/IAC	50+50 reactions
PMB10A-F-50	PATHfinder - 2x2-Plex Kit - [stx1+stx2]/[stx2f] e [eae]/IAC	50+50 reactions

• Real-Time PCR kits for STEC serogrouping (*according to ISO 13136)

PMB10A-P157	PATHfinder E.coli O:157 rfbE Assay (*)	50 Reactions
PMB10A-P111	PATHfinder E.coli O:111 wbdL Assay (*)	50 Reactions
PMB10A-P26	PATHfinder E.coli O:26 wzx Assay (*)	50 Reactions
PMB10A-P145	PATHfinder E.coli O:145 ihp1 Assay (*)	50 Reactions
PMB10A-P103	PATHfinder E.coli O:103 wzx Assay (*)	50 Reactions
PMB10A-P45	PATHfinder E.coli O:45 wzx Assay	50 Reactions
PMB10A-P121	PATHfinder E.coli O:121 wzx Assay	50 Reactions
PMB10A-P104	PATHfinder E.coli O:104 wzx Assay	50 Reactions
PMB10A-H7	PATHfinder E.coli H:7 fliC Assay	50 Reactions
PMB10A-H4	PATHfinder E.coli H:4 fliC Assay	50 Reactions

• External controls

PMB10X-F	PATHfinder SureXtra - VTEC stx2f	50 Vials - Made-to-order
PMB10X-M	PATHfinder SureXtra - VTEC [stx1+stx2+eae]	50 Vials - Made-to-order
PMB10X-P103	PATHfinder SureXtra - E.coli O:103	50 Vials - Made-to-order
PMB10X-P104	PATHfinder SureXtra - E.coli O:104	50 Vials - Made-to-order
PMB10X-P111	PATHfinder SureXtra - E.coli O:111	50 Vials - Made-to-order
PMB10X-P121	PATHfinder SureXtra - E.coli O:121	50 Vials - Made-to-order
PMB10X-P145	PATHfinder SureXtra - E.coli O:145	50 Vials - Made-to-order
PMB10X-P157	PATHfinder SureXtra - E.coli O:157	50 Vials - Made-to-order
PMB10X-P26	PATHfinder SureXtra - E.coli O:26	50 Vials - Made-to-order
PMB10X-P45	PATHfinder SureXtra - E.coli O:45	50 Vials - Made-to-order

Each vial contains heat inactivated E.coli previously inserted with a plasmid containing the respective PMB10A assay target sequence. This allows to monitor the efficiency of the extraction kit in recovering DNA from sample.

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